



Volcanic Aerosol

Recommended Age:

Intermediate Level (Grades 5-8)

OBJECTIVE

Convert volcano elevation from feet to meters.

Prerequisite Skill:

Decimals, Multiplication, and Length Conversions

Applicable National Math Standards:

- Standard 6.3 (Extend understanding of whole number operations to decimals..)
- Standard 7.1 (Compute whole numbers, fractions, decimals, integers, and rational numbers)
- Standard 13 (Develop formulas and procedures for determining measurement to solve problems)

Instructional Delivery:

Whole Group, cooperative Group, Flexible Group, or Independent

Materials Needed:

Volcano handout (calculators are optional)

ACTIVITY PROCEDURE

1. It is recommended that the teacher introduce each isolated skill, and then combine them all together so that the students can understand what is expected of them in the math activity. [Example]

a. Have students multiply $4,898 \times 255 = \underline{\hspace{2cm}}$; $10,487 \times 620$

b. Next, have students multiply $2,345 \times 0.25 = \underline{\hspace{2cm}}$; $18,974 \times 0.304$

c. Then, introduce the length conversion formula: $\text{feet} \times 0.3048 = \text{meters}$

2. Teachers should select instructional delivery, but should work the first problem as a whole group.

3. Have students calculate conversions on the handout, if calculators are used.

4. Remind the students of the length conversion factors:

To Convert from: To: Multiply by:
feet (ft) meter (m) 0.3048

5. If students are not using calculators, then have them show all of their work as they convert the math problems. Students should understand that this activity is pulling several math skills together: multiplication, using numbers with decimal points, and a conversion formula.